

CALIFORNIA ENERGY COMMISSION
Small Business Lighting Improvements
Greater Fresno Area Chamber of Commerce Facilities
Project Summary

Project Description:

The Greater Fresno Area Chamber of Commerce, in conjunction with the Fresno County Workforce Investment Board, conducted an energy conservation awareness campaign during June and July 2001. On-site energy audits were conducted at over 1,200 commercial locations, looking at opportunities in air-conditioning and lighting energy savings. Results from these audits found that many small businesses were still using inefficient T12 lighting technology with standard ballasts, and many sites were overlit. The Innovative Peak Load Reduction Program provided funding to offset up to 75% of the equipment cost for lighting upgrades for member businesses who participate in the program, while the Chamber provided financing and auditing.



The Chamber focused on businesses too small to be eligible for the program on their own by aggregating many applications together. The types of fixtures retrofit were primarily 4- and 8-foot T12 fluorescent lamps and ballasts with aggressive de-lamping, but also included some High Intensity Discharge fixtures to T5 fluorescent retrofits. In order to minimize installation and supply costs for this program, the Chamber utilized a competitive bidding process. They were able to guarantee a level of constant work for the installers and suppliers contracted for this project, and thus took advantage of economies of scale to drive prices down. On a cost per fixture basis, the small businesses got the same price as larger customers.



Project Results:

The small business market still has a lot of the T12 lighting technology in place. The Chamber collected a detailed inventory for each site, including ballast and lamp type, quantity, and wattage. From this data, they found that 85% of all removed 4-foot lamps were 40-watt T12s, and that 89% of the removed ballasts were standard or energy efficient magnetic types. The program averaged 176 watts per fixture for 4-lamp, 4-foot T12s before retrofit. With de-lamping down to a 2-lamp fixture, and by using the newest premium T8 and ballast combinations, wattage was reduced to an average of 58 watts. By using the best available products on the market (premium, name-brand T8

technology), the Chamber ensured a high level of light retention with minimal return calls and product failures.

Funding Details:

Project Cost	\$ 453,745
Total Grant Award	\$ 256,302
Kilowatt Load Reduction	1,029.4

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